



Information Services  
Opportunities and Trends, 1994-1999

---

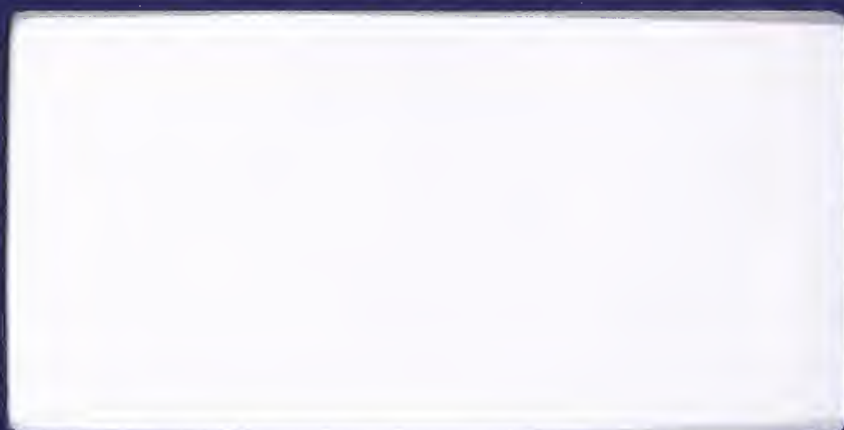
## State and Local Government

---

**U.S. Market Analysis Program**

15421

15421



Information Services  
Opportunities and Trends, 1994-1999

---

## State and Local Government

**INPUT<sup>®</sup>**

---

Frankfurt • London • New York • Paris • San Francisco • Tokyo • Washington, D.C.



INTERNATIONAL IT INTELLIGENCE SERVICES

Clients make informed decisions more quickly and economically by using INPUT's services. Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, research, objective analysis and insightful opinions to prepare their plans, market assessments and business directions, particularly in computer software and services.

Contact us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

## SUBSCRIPTION SERVICES

- Information Services Markets
  - Worldwide and country data
  - Vertical industry analysis
- Systems Integration/Professional Services Markets
- Client/Server Software
- Outsourcing Markets
- Information Services Vendor Profiles and Analysis
- Electronic Commerce/Internet
- U.S. Federal Government IT Markets
- IT Customer Services Directions (Europe)

## SERVICE FEATURES

- Research-based reports on trends, etc. (More than 100 in-depth reports per year)
- Frequent bulletins on events, issues, etc.
- 5-year market forecasts
- Competitive analysis
- Access to experienced consultants
- Immediate answers to questions
- On-site presentations

## DATABASES

- Software and Services Market Forecasts
- Software and Services Vendors
- U.S. Federal Government
  - Procurement Plans (PAR, APR)
  - Forecasts
  - Awards (FAIT)

## CUSTOM PROJECTS

For Vendors—analyze:

- Market strategies and tactics
- Product/service opportunities
- Customer satisfaction levels
- Competitive positioning
- Acquisition targets

For Buyers—evaluate:

- Specific vendor capabilities
- Outsourcing options
- Systems plans
- Peer position

## OTHER SERVICES

Acquisition/partnership searches

## INPUT WORLDWIDE

### Frankfurt

Sudetenstraße 9  
D-35428  
Langgöns-Niederkleen  
Germany  
Tel. +49 (0) 6447-6005  
Fax +49 (0) 6447-7327

### London

Cornwall House  
55-77 High Street  
Slough, Berkshire  
SL1 1DZ, England  
Tel. +44 (0)1753 530444  
Fax +44 (0)1753 577311

### New York

400 Frank W. Burr Blvd.  
Teaneck, NJ 07666  
U.S.A.  
Tel. 1 (201) 801-0050  
Fax 1 (201) 801-0441

### Paris

24, avenue du Recteur  
Poincaré  
75016 Paris  
France  
Tel. +33 (1) 46 47 65 65  
Fax +33 (1) 46 47 69 50

### San Francisco

1881 Landings Drive  
Mountain View  
CA 94043-0848  
U.S.A.  
Tel. 1 (415) 961-3300  
Fax 1 (415) 961-3966

### Tokyo

Saida Building, 4-6,  
Kanda Sakuma-cho  
Chiyoda-ku, Tokyo 101  
Japan  
Tel. +81 3 3864-0531  
Fax +81 3 3864-4114

### Washington, D.C.

1921 Gallows Road  
Suite 250  
Vienna, VA 22182-3900  
U.S.A.  
Tel. 1 (703) 847-6870  
Fax 1 (703) 847-6872

Published by  
INPUT  
1881 Landings Drive  
Mountain View, CA 94043-0848  
United States of America

**U.S. Information Services  
Product/Service Market Analysis  
Program**

***Information Services Opportunities and  
Trends, 1994-1999***

***State and Local Government***

Copyright © 1995 by INPUT. All rights reserved. Printed in the United States of America. No part of the publication may be reproduced or distributed in any form, or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

The information provided in this report shall be used only by the employees of and within the current corporate structure of INPUT's clients, and will not be disclosed to any other organization or person including parent, subsidiary or affiliated organization without prior written consent of INPUT.

INPUT exercises its best efforts in preparation of the information provided in this report and believes the information contained herein to be accurate. However, INPUT shall have no liability for any loss or expense that may result from incompleteness or inaccuracy of the information provided.



Digitized by the Internet Archive  
in 2015

# Table of Contents

<b>I</b>	<b>Introduction</b>	<b>I - 1</b>
	A. Purpose and Methodology	I-1
	1. Purpose	I-1
	2. Methodology	I-1
	B. Industry Structure	I-2
	C. Organization and Contents	I-3
<b>II</b>	<b>Trends, Issues and Events</b>	<b>II - 1</b>
	A. Trends	II-1
	B. Major Issues for Information Systems (IS) Managers	II-4
	C. End-User Issues	II-6
	D. Events	II-7
<b>III</b>	<b>Information Systems Environment</b>	<b>III-1</b>
	A. Applications	III-1
	B. Information Services Issues	III-3
	C. Objectives and Plans	III-5
<b>IV</b>	<b>Information Services Environment</b>	<b>IV - 1</b>
	A. Overview	IV-1
	B. Product/Service Sector Analysis	IV-2
	C. Industry Sector Analysis	IV-5
	1. Driving Forces	IV-5
	2. Inhibiting Forces	IV-6
<b>V</b>	<b>Conclusions and Recommendations</b>	<b>V - 1</b>
	A. Conclusions	V-1
	B. Recommendations	V-1
<b>Appendix A</b>		
	<b>Forecast Database and Reconciliation</b>	<b>A - 1</b>
	A. Forecast Database	A-1
	B. Forecast Reconciliation	A-1

# Exhibits

---

## II

- |    |                                       |      |
|----|---------------------------------------|------|
| -1 | Industry Trends                       | II-3 |
| -2 | Key Issues: IS Department Managers    | II-4 |
| -3 | Key Issues: Information Systems Users | II-6 |
- 

## III

- |    |  |       |
|----|--|-------|
| -1 | Major IS Issues  | III-3 |
| -2 | Driving Forces   | III-4 |
| -3 | Information Systems Management Objectives                      | III-6 |
| -4 | State and Local Government Expenditures by Government Function | III-7 |
- 

## IV

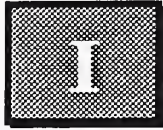
- |    |  |      |
|----|--|------|
| -1 | State and Local Government Market, 1994-1999         | IV-1 |
| -2 | Market Forecast by Product/Service Sector, 1994-1999 | IV-3 |
| -3 | Professional Services Growth, 1994-1999              | IV-4 |
| -4 | Driving Forces                                       | IV-5 |
| -5 | Inhibiting Factors                                   | IV-6 |
- 

## V

- |    |                   |     |
|----|-------------------|-----|
| -1 | Key Opportunities | V-1 |
| -2 | Recommendations   | V-2 |
- 

## A

- |    |  |     |
|----|--|-----|
| -1 | State and Local Government—User Expenditures Forecast by Product/Service Market, 1993-1999 | A-2 |
| -2 | State and Local Government—1994 MAP Database Reconciliation                                | A-3 |



# Introduction

## A

---

### Purpose and Methodology

#### 1. Purpose

The objectives of this Market Analysis Program industry sector report are to:

- Introduce the reader to the state and local government sector structure and demographics
- Identify the business issues and trends that are driving the use of information services in the sector
- Discuss how state and local government organizations use information services and the issues facing their information systems organizations
- Discuss the information services market in the state and local government sector, including market-sizing factors driving market demand for each delivery mode

#### 2. Methodology

This report is based on data gathered during 1994 as part of INPUT's ongoing market analysis program. Trends, market size, and growth rates are based primarily on in-depth interviews with state and local government users and the IS vendors serving this sector. INPUT maintains ongoing relationships with, and a database of, all users and vendors that it interviews. Interviewees for the research portion of this report were selected from the database of contacts.

To prepare this report, INPUT interviewed end users and information systems executives in large and small state and local governments. Data obtained from the interviews was used as a base from which to analyze spending levels and patterns, and trends in the application of technology. Data gathered from interviews was augmented by budget data received from such agencies.

In addition to interviews with state and local government information users and information systems executives, INPUT interviewed leading vendors in the sector. Vendor interviews were conducted to develop an understanding of vendor issues and opportunities.

In addition to the data gathered from interviews of vendors and users, extensive use was made of INPUT's corporate library. The resources of this library include several on-line periodical databases, subscriptions to over 50 computer and general business periodicals, continually updated files on over 3,000 information services vendors, and up-to-date U.S. Department of Commerce publications on industry and employment statistics.

## B

---

### Industry Structure

The *Statistical Abstract of the United States—1994* identifies 86,742 state and local governments extant as of the end of 1992. (The federal government gathers data only once every five years, for years ending with a two or a seven.) Of the total, there are 86,692 local government entities, grouped as follows:

- 3,043 County
- 19,296 Municipal
- 16,666 Township and Town
- 14,556 School District
- 33,131 Special District

When considering the needs and requirements for information services, it is necessary to note the following:

- INPUT analyzes the education market (including school districts) as a separate vertical sector. The number of school districts therefore needs to be subtracted from the total.

- Of the total counties (3,043), 418 of them (13%) have a population of more than 100,000. At the other end of the spectrum, 24% (728) of the counties have populations of less than 10,000 people.
- Of the total municipalities (19,279), only 6% (1,071) have populations of more than 25,000. However, these represent 69% of the population of this group.
- Thirty-seven percent of the towns and townships (359) have populations of more than 25,000. However, unlike municipalities, 63% of the population is in towns and townships of less than 25,000.

After considering factors such as uniqueness of needs and areas of greatest opportunity, INPUT believes that the state and local government market can be divided into two major groups:

- The state and local government entities (local, county and municipal) that represent the majority of the population
- An additional group composed of the special districts that provide service to one or more local government areas

This report focuses on these entities as the source of greatest opportunity.

## C

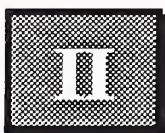
---

### Organization and Contents

Following this introduction chapter, the report is organized into four additional chapters and one appendix.

- Chapter II—Trends, Issues and Events—describes the business issues and trends that are driving the use of information services within the sector.
- Chapter III—Information Systems Environment—provides an overview of the basic business processes in the state and local government sector and their supporting information systems applications.
- Chapter IV—Information Services Market Forecast— provides a forecast for information services in the state and local government market by product/service sector.

- Chapter V—Conclusions and Recommendations—provides a summary of the major areas of opportunity resulting from the research, and recommendations to vendors entering or expanding into the state and local government sector.
- Appendix A presents the Forecast Database and Forecast Reconciliation.



## Trends, Issues and Events

### A

#### Trends

---

As noted in the 1993 report on this industry, state and local governments continue to be caught in a squeeze. On the one hand, there are tremendous pressures to increase spending. An aging population is demanding increased health and public safety services, a weak economy is increasing social welfare costs, and inflation—though at its lowest levels in years—drives up the cost of the wages, goods and services needed to operate government. On the other hand, state and local governments' revenues are flat at best, and in most cases have decreased significantly as the recent weak economy eroded sales and income taxes. In order to leverage the management of such resources as retirement funds, some local governments have resorted to investment funds, using the stock market as any individual might. (This approach, however, can produce disastrous results, as it did in Orange County, California, where over \$2 billion of the county's fund assets (on paper) were lost through investments on derivatives.)

Help is not coming from Washington. Federal budget pressures have caused the shifting of responsibility from the federal level to the state level. At the same time, state budget limitations have reduced the states' ability to assist local governments. Government executives generally want to provide more cost-effective methods of delivering services, and many recognize that information systems offer alternatives for cost effectiveness, but are unable to provide more funding to information systems departments.

As a result, many state and local information systems executives are frustrated and dissatisfied about being unable to apply technology that they know could result in improved operational and cost effectiveness.

A significant result of these conflicting pressures is the emergence of entrepreneurial managers, particularly at the local government level. They are finding ways to finance information systems acquisitions that offer quick payback. They are outsourcing an increasing number of

operations, such as parking ticket and ambulance run collections, to reduce costs and increase revenues.

The new breed of entrepreneurial managers is focusing on the connectivity and interoperability of government systems to improve operational effectiveness. These managers are tying together different systems so that, for example, citizens with unpaid parking tickets cannot renew their vehicle or driver licenses until those tickets have been paid. To achieve this goal, the State of Oregon implemented directory synchronization technology to allow the government's 15 independent E-mail systems to communicate with each other.

Electronic bulletin boards and on-line access to files such as assessment and property records have also been implemented, thereby improving public access to government information without hiring more clerks and increasing operating costs. For example, the State of Texas has installed multimedia kiosks in numerous public locations statewide to give Texans access to state government information.

As noted in INPUT's 1993 report, vendors who can demonstrate fast payback on investment in their equipment, software, or services can continue to get the attention and support of these entrepreneurial managers. Many information services vendors have learned to deal with the needs, politics, divided management responsibilities, methods of funding and budgeting, and staff problems that are encountered in the state and local government market sector. Selling to this sector, however, still requires careful analysis of the business factors and personalities involved in each sales situation.

In recent years, there has been an increase in commitments by state and local governments that require new IS capabilities. Information services, particularly professional services and systems integration, will continue to grow during the next five years as a result. The key trends continue from the prior year, and include those summarized in Exhibit II-1.

## EXHIBIT II-1

**Industry Trends**

- Connectivity/interoperability
- Public data access/dissemination
- Increasing budget pressures
- Increasing IS solution demand
- Increasing public demand for services
- Emergence of entrepreneurial managers

- The importance of connectivity and interoperability is growing in state and local government. As with the federal government, there is need for connectivity between a wide variety of hardware types. To date, state and local governments have focused on LAN connectivity, but demand is growing for comprehensive intra- and inter-department networks that will connect to large databases. Open systems standards are also important.
- Public access to information and the ability to disseminate services electronically continues to grow rapidly in both state and local governments. Direct interaction with the public through on-line systems to request information and request and receive benefits is becoming more widespread.
- Budget restrictions and reduced funding at all levels continues to be a major concern for both users and vendors. For vendors, the situation is not dissimilar to that in the private sector, in which many companies have delayed funding new projects due to lack of capital. The result has been increased focus on shorter and less costly projects that have a demonstrable and measurable short-term payback. Short-term payback can be a critical factor. Projects that provide a clearly identifiable early return frequently may receive funding where other long-term projects may not.
- The growing tendency to focus on information systems (as a solution) can be a double-edged sword. On the one hand, vendors who can demonstrate tangible results can find greater opportunities. On the other hand, many state and local government executives do not appreciate the high investment associated with technology solutions, making the sales job more difficult.

- Although growth of PCs and LANs will continue, large mainframe systems (probably acting as servers) will still be needed to support the large databases, as well as new storage-intensive applications such as electronic imaging and geographic information systems.

The existence of on-line systems that allow direct public access is a trend that introduces significant social concerns, as well as the need for strict security controls. These concerns can inhibit the drive to improve efficiency and reduce costs by automating manual systems or access.

## B

### Major Issues for Information Systems (IS) Managers

In December 1994, INPUT conducted interviews with state and local government information systems users. Major issues expressed are summarized in Exhibit II-2. They are consistent with the 1993 report.

#### EXHIBIT II-2

#### Key Issues: IS Department Managers

- Growing user expectations
  - Increasing demand for new applications to improve efficiency and reduce costs
  - Limited budgets
  - Consolidation of mainframes to reduce costs
  - Connectivity
- 
- Department executives in this sector increasingly expect to improve operational and cost effectiveness by using information technology. However, they are frequently unable to provide funding for systems projects.
  - As in the private sector, systems solutions are becoming increasingly complex. Until recently, systems were developed to meet the specific needs of a department or work group within a department. Users and officials now demand integrated systems for human resources, social service, taxes, courts, criminal justice, and public safety. Systems solutions can span multiple departments and agencies, and may need to integrate a wide variety of functions across a large geographic area.

- Most state or local governments do not have comprehensive plans for the use of technology. Many require an annual technology plan, but the plan is frequently at the level of a single department. Few state or local governments have developed and acted upon comprehensive plans to address needs over the next five years, although many are now considering them.
- The budget pressures and staff reductions noted over the last five years continue, and few of the users interviewed plan to use in-house resources exclusively to implement new applications. Most will implement new applications with user department personnel and packaged software, or with the assistance of outside professional services firms and systems integrators.
- The integration of existing data and applications with new technologies is already an issue in this sector. The State of Oregon directory synchronization project mentioned previously is one example of this. However, unless the application of these new technologies can demonstrate a clear reduction in costs, funding is not likely to be forthcoming.
- The budgeting process in many state and local governments remains an inhibiting factor to technology planning due to the practice of using current operating expenses as a baseline, with incremental amounts to reflect increases in costs.

Major IS issues, as noted in INPUT's more recent state and local government reports, will continue to be substantially the same over the next several years. Funding will remain a significant problem, and IS managers' top priority for new development will be to respond to legislated requirements. For those entities that have comprehensive technology plans, there will be little ability to execute them, as a result of ongoing budget limitations.

**C****End-User Issues**

End-user issues in the state and local government sector were identified through discussions with the users themselves, as well as with IS managers and vendors. Vendors should consider the issues identified in Exhibit II-3 when planning product and service offerings to this sector.

---

**EXHIBIT II-3****Key Issues: Information Systems Users**

- Connectivity
- Support of new desktop applications
- Legislative mandate

Connectivity continues to be a major concern for end users because there are many needs that involve access by legislators, city planners, controllers or program offices to financial, human resource, and benefits and services databases. As a result, users in this sector continue to look to vendors to provide network expertise.

Users are also having an increasingly strong role in planning and implementing projects, while the role of the department continues to shrink. Systems integrators and processing services firms will play a substantial role in working with these users, especially on issues involving connectivity and interoperability.

Training and support is also important to these users. Management—and increasingly, vendors—must plan to adequately train and support users. Vendors interested in this sector should explore user training and support service offerings that build relationships while providing cost-effective training and support.

## D

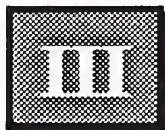
### Events

---

A number of events in state and local governments during 1994 attest to the budget pressures and difficulties faced by IS management and state and local government officials. Other events serve as strong indicators of the type of information systems needed to meet future requirements.

- As the wealthiest county in the state, Orange County, California revealed in late 1994 that its investment fund lost over \$2 billion (nearly 30%) as the result of huge loans and investments made in derivatives markets. To date, this is the largest loss for a local government entity ever recorded, and it has caused many municipal governments to become concerned about their own investment funds.
- In September 1994, the State of Utah awarded a contract to US West Communications for the construction of the Utah Community of Interest Network (CoIN). The purpose of this project is to give citizens in mostly rural Utah access to "distance" learning, telemedicine, banking and video-related services available through the Internet. CoIN will be built on the Utah Education Network, already extant.
- North Carolina has a plan comparable to Utah's, that will use BellSouth Telecommunications, Inc., to create a statewide, ATM-based, fiber-optic network. The \$160 million, 116,000-fiber-mile project is currently the most ambitious in the world.
- In February 1994, the State of California's Department of General Services awarded Pacific Bell, Compression Labs, Inc., and Tele-Images, Inc. a joint contract to develop a videoconferencing system for government use. The goal of implementing such a system is to reduce the state's employee travel budget, which is estimated at \$100 million per year.

(Blank)



# Information Systems Environment

## A

### Applications

---

In the more than 86,000 state and local government entities, there exists a wide range of information systems, and they range from old mainframes and early PCs to sophisticated networks using advanced systems and software. Ironically, smaller cities and towns, as well as small counties—some late to install information systems—often have much more sophisticated technology than do their larger counterparts and state governments, which are struggling with systems installed in the 1970s and early 1980s.

Applications used in executive, legislative and general government include the following:

- Government personnel
- Applicant tracking
- Employee management and compensation
- Government payroll
- Purchasing
- Inventory management
- Voter registration
- Election returns

Applications at the state and local government level can be grouped into several general categories: judicial systems; public order and safety; public finance, taxation and monetary policy; administration of human resources; administration of environmental housing and quality

programs; administration of economic programs; and other public administration systems.

- Judicial systems include traffic courts, district courts, family courts, superior courts and many other types of courts.
- Public order and safety includes state police and highway patrols, city police departments and sheriffs' offices, fire protection, legal counsel and protection (such as public defenders' and prosecutors' offices), and correctional institutions.

In order to improve system functionality and efficiency, counties are trying to integrate justice and public order systems that tie police, sheriff, prosecutors, courts, and corrections into a single unified system called a criminal justice information system, or CJIS.

Public finance, taxation, and monetary policy all cover organizations primarily engaged in financial administration and taxation, such as budget agencies, controllers' offices, property tax assessors' offices, state tax commissions, tax departments, and treasurers' offices.

Human resources administration includes the management (at both state and county level) of educational programs, public health programs, and social manpower and income maintenance programs.

Housing and quality programs include managing environmental programs, housing and urban development programs. Within this group are environmental protection agencies, environmental quality and control agencies, land management agencies, community development agencies, county development agencies, urban planning commissions, and zoning boards and commissions.

Economic program administration includes: general economic program management; regulation and administration of transportation programs; regulation and administration of communication, electric, gas and other utilities; and regulation, licensing and inspection of miscellaneous commercial sectors. Though this group shares some responsibility with federal agencies, it also includes numerous licensing and inspection offices, transit-related bureaus, and alcoholic beverage control boards.

**B****Information Services Issues**

As noted earlier in this report, state and local governments face severe and mounting budget constraints. In the wake of the Republican landslide in November 1994, a situation is likely to emerge wherein local governments cannot look to the states for assistance, nor can the states look to Washington, D.C. Yet though state and local governments are forced to become more self-reliant, the demand from the public for services is growing.

State and local government allocations for IS funding are frequently affected by legislative actions and mandates, such as delivering new or different services or raising or reducing sales, income or property taxes. These all affect the development and operation of information systems.

State and local governments have fewer resources available now to develop or expand systems in response to legislative mandate. Vendors selling to this segment must learn to target accurately the agencies with both IS needs and the financial resources to fill them. Tandem Computer's contract with the California Department of Motor Vehicles (DMV) ran into trouble when the DMV's needs drove up the cost of the contract, although funding shrank.

Because of this dearth of resources, state and local governments have to find ways to deliver more and better services to the public with fewer workers. To do this, they primarily plan to invest in applications that will increase the productive capacity of the work force. Major improvements in technologies, such as document imaging and improved connectivity with systems in other agencies, are needed to reduce the volume of paperwork. Exhibit III-1 shows the major information services issues.

---

EXHIBIT III-1**Major IS Issues**

- Budgetary constraints
- Increasing demands from users and the public
- Improving worker productivity
- Connectivity and interoperability
- Shortage of IS personnel

Driving forces in the use of IS in this sector are shown in Exhibit III-2. With the acceptance of new technology, both expectations and frustrations are growing.

---

**EXHIBIT III-2****Driving Forces**

- Growing expectations
- Reduced funding
- Antiquated systems
- Increasing complexity
- Productivity and backlogs
- Integration of technology and systems
- Requirements mandated by law

- Most agencies recognize the need for document imaging, networks, and electronic mail, but they are inhibited by a lack of staff and funds.
- Funding and staff shortages, exacerbated by old or obsolete systems, are driving state and local governments to use outside resources, such as professional services firms, to provide programming and consulting services.

As INPUT stated in its 1993 report, funding cuts and legislative constraints on allocating available money continue to be the major issues. Like other market sectors, the costs of personnel, goods and services continue to rise; yet unlike the private sector, governments have strictly controlled budgeting and organizational procedures that continually encumber IS departments and users alike.

The constraints, as mentioned previously, have created a new breed of entrepreneurial managers who circumvent procedures in order to address information systems needs. Vendors must understand these constraints, and seek out managers who can work within—and around—the bureaucracy, and assist them by cost-justifying their products and services. (Sometimes the system itself can change, as it has in California, where the Department of General Services has adopted the procurement practices of the Federal General Services Administration. Under the new program, once a vendor's name is on a procurement schedule, state agencies can place orders without going through the time-consuming bidding process used previously.)

Systems integration remains a valuable service to state and local government IS users. Frequently, users need solutions that will permit the integration of data across departments, as in the State of Oregon example previously noted. The need for shared data is driving the increasing complexity of systems.

- In order to serve and protect more effectively, police, fire and emergency medical services must have immediate access to data from criminal history, geographic and hazardous material databases.
- Social welfare agencies must have access to data about other benefits, such as health services, in order to serve the truly needy and expose those who abuse the system. This is particularly true in states such as California, where voters approved Proposition 187, a legislative initiative designed to deny illegal immigrants access to numerous welfare and related services.

Such legislated demands often intensify the funding, budget and staff constraints. New legislation to provide benefits to the public, or to alter benefits already in place (such as Prop. 187), often impacts IS schedules and resource allocation.

- Priority conflicts emerge when the demands of the legislating body must be met, even if other projects must be postponed or abandoned.
- Sadly, legislation often provides only a short-term fix, resulting in diversion of resources from development of more comprehensive systems for improving efficiency and reducing cost.

As INPUT has stated for several years, vendors that can provide flexible modular applications that can be easily integrated into existing systems under prevailing government circumstances will have an advantage in this sector.

## C

---

### Objectives and Plans

IS management objectives, shown in Exhibit III-3, reflect concerns about funding constraints, as well as the cost and management's understanding of technology. They are consistent with objectives discussed in the 1993 report.

## EXHIBIT III-3

**Information Systems Management Objectives**

- Update and expand existing systems
- Address connectivity/interoperability issues
- Train end users
- Improve standardization
- Reduce operating costs

- Updating and expanding existing systems is a primary concern for many state and local government officials. It has arisen from the need to connect in-place systems in different departments to meet new and growing service demands.
- Most states and local governments recognize the need for major network enhancements to implement integrated systems.
- Vendors should focus their training on the day-to-day technology user.
- Numerous problems exist among diverse, incompatible systems. In the 1990s, these have become apparent to almost everyone in state and local governments. Therefore, a growing number of users and IS managers must have better standardization in desktop applications and networks.
- Government revenues continue to be down at most levels, resulting in enormous pressure to reduce the cost of government. More and more senior managers realize that they already have many of the pieces in place to implement comprehensive systems that can eliminate unnecessary work, reduce fraud and abuse, and ultimately streamline government. Integration remains the key to assembling the comprehensive systems they need.

Exhibit III-4 shows data about state and local government expenditures.

---

EXHIBIT III-4

**State and Local Government  
Expenditures by Government Function**

<b>Government Function</b>	<b>State Government Expenditures, 1992 (\$ Millions)</b>	<b>Local Government Expenditures, 1992 (\$ Millions)</b>
Highways	40,266	26,211
Public Welfare	125,500	28,734
Health and Hospitals	41,643	46,469
Police Protection	4,863	29,682
Local Fire Protection	-	14,358
Corrections	18,306	10,300
Sanitation and Sewage	2,235	30,163
Housing and Community Development	1,606	15,461
Government Administration	19,847	30,488
Interest on General Debt	25,482	39,416
Insurance Trust Expenditures	79,895	10,381
Education	86,650	240,120

*Source: Statistical Abstract of the United States – 1994*

- Public education and welfare both remain the largest areas of expenditure. This is not expected to change.
- The public demand for better law enforcement protection, embodied in the 1994 passage of the Brady Bill, will likely increase police protection even more.

(Blank)

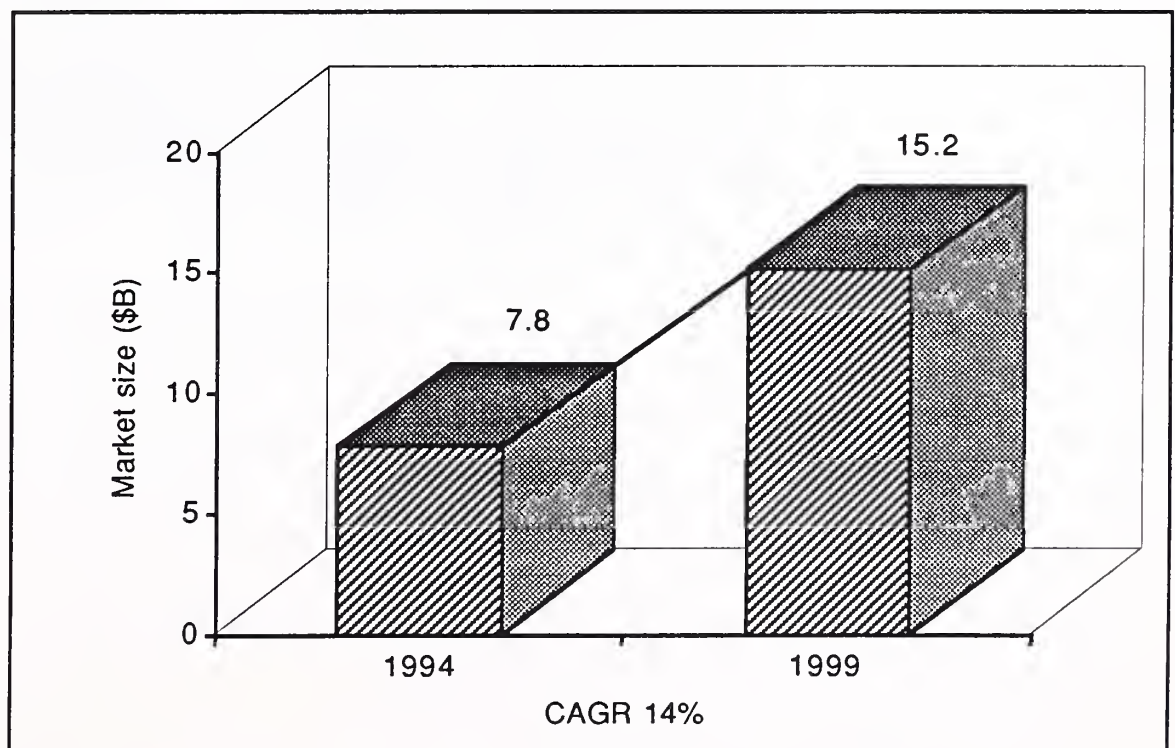
**IV**

## Information Services Market Forecast

**A****Overview**

INPUT forecasts that user expenditures for information systems in state and local government will amount to \$9 billion in 1994, as shown in Exhibit IV-1. This represents an estimated growth of 13% over 1993. The compound annual growth rate is expected to average 14% for the next five years, resulting in a market of over \$15 billion by 1999.

EXHIBIT IV-1

**State and Local Government Market, 1994-1999**

The 14% average growth rate reflects the following factors:

- The growth rate is expected to rise gradually to 15% by 1999, as cities, counties and states find ways to use information systems to improve both cost and operational effectiveness.
- Focus on integrating existing applications to improve service delivery and reduce costs continues to grow.
- There is ever-growing demand for new and creative ways to apply technology.
- Due to monetary considerations, there is ongoing need to automate office processes to meet increasing service demands without adding more workers.

## B

---

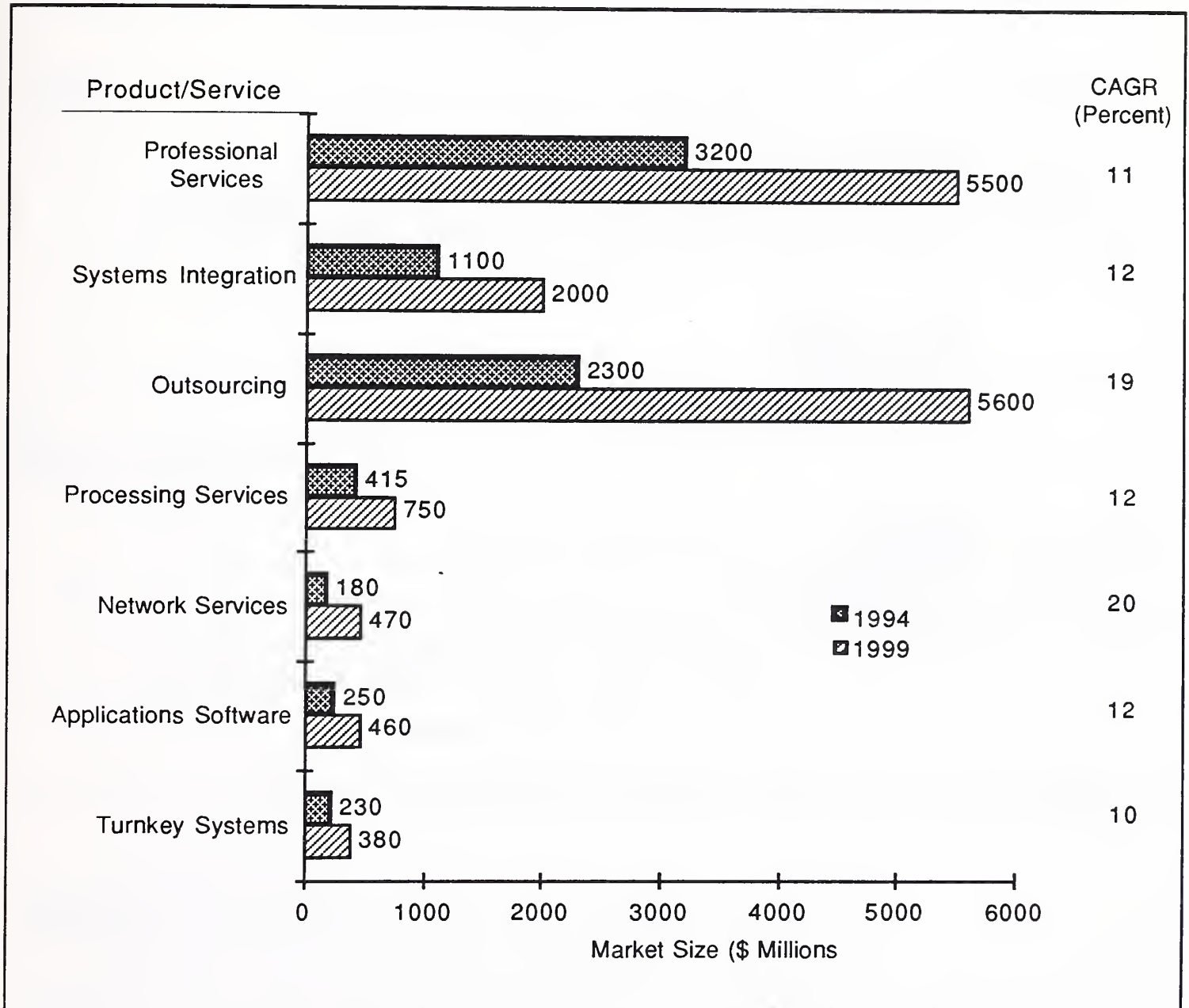
### Product/Service Sector Analysis

Despite numerous fiscal difficulties faced by state and local governments, the market has a stable foundation and is expected to remain strong. Analysis of the delivery modes reveals areas of particular strength, as shown in Exhibit IV-2.

- Professional services remains strong and is growing, as governments use outside services for systems design and development (see Exhibit IV-3). Expenditures in 1994 are estimated at just above \$3 billion and should grow at a steady 11% annually. In many states, systems design and programming services can represent half of the professional services expenditures.

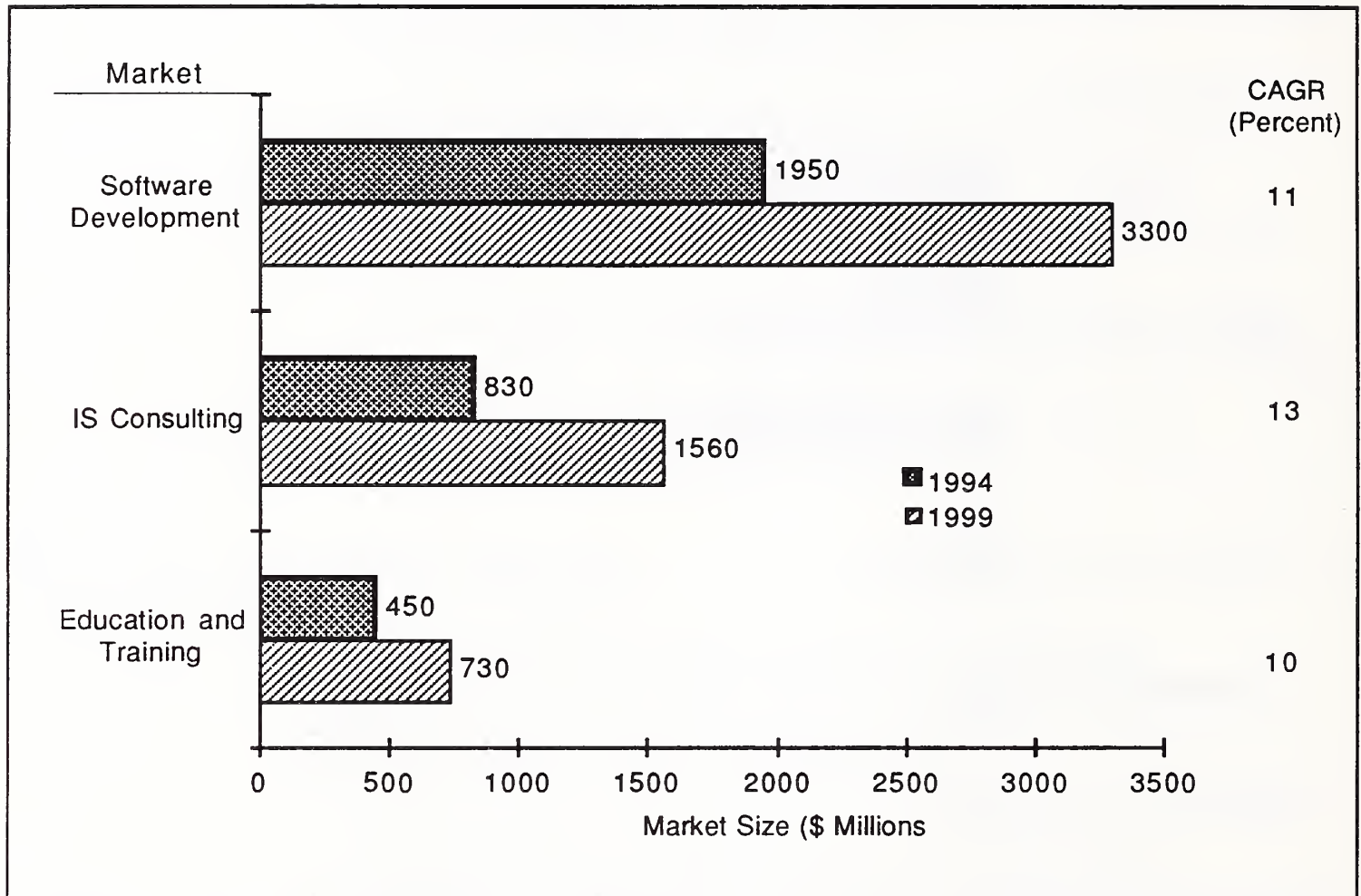
## EXHIBIT IV-2

## Market Forecast by Product/Service Sector, 1994-1999



## EXHIBIT IV-3

## Professional Services Growth, 1994-1999



- The need for comprehensive, integrated systems solutions is growing in states, larger cities, and counties, where some systems are still old and fragmented. This need is based on a growing demand from the public for more services, coupled with a shifting of the burden from the federal government level to the state and local level. These needs continue to fuel demand for comprehensive, integrated systems to reduce waste and fraud. Professional services will account for over half of the \$1 billion spent in 1994 for systems integration services. Growth is expected to remain steady at 12% annually.
- Among counties and large cities, increasing attention is being given to processors that can provide full service at a reduced overall cost. Outsourcing is expected to grow to over \$5 billion by 1998.

- Network services will remain strong due to the need to interconnect networks within and between government agencies. A 21% growth rate is expected to increase expenditures on network services to nearly \$500 million by 1998.
- In an effort to close the budget gap, local governments are billing citizens for services such as ambulance runs and false police calls, but they do not possess the staff and systems to collect for these services effectively enough. Increasingly, government agencies are outsourcing the billing and collection of these types of services, as well as the collection of traffic and parking tickets. These cities and towns experience a significant increase in collections, while lowering operating expenses.

## C

### Industry Sector Analysis

A number of factors are causing the state and local government market to grow. However, other equally important factors are inhibiting greater use of technology to meet growing demands. The driving forces and inhibiting factors are consistent with those in the 1993 report, and are discussed below.

#### 1. Driving Forces

The need to provide new or expanded programs and services to the public is the foremost driving force in this sector, as shown in Exhibit IV-4.

EXHIBIT IV-4

#### Driving Forces

- |                              |                          |
|------------------------------|--------------------------|
| • Increasing service demands | • Improved affordability |
| • Budget pressures           | • Legislative mandates   |

States and cities interviewed by INPUT have stated that new systems are required to provide better services to the public, to allow fewer government workers to handle more work, and to provide better financial control.

With fewer workers, state and local governments have developed an increased reliance on IS as a success factor in this sector. The improved affordability of powerful technology is one reason IS vendors are sought. Up-to-date technologies, such as networks and voice response systems, are important for service demands.

## 2. Inhibiting Forces

As shown in Exhibit IV-5, the inhibiting forces are predominantly management issues. In many state and local government offices, selecting between various technologies is less important than some organizational and political issues.

EXHIBIT IV-5

### Inhibiting Factors

- |                       |                        |
|-----------------------|------------------------|
| • Available funding   | • Political impact     |
| • Qualified personnel | • Executive commitment |

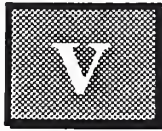
- With unrelenting pressure to reduce bureaucracy and channel more funds to the public, funding for technology investment remains difficult to obtain.
- Numerous state and local governments have frozen hiring and, in many cases, have laid off personnel. IS departments remain particularly vulnerable to this. Consequently, there is a requirement for solutions that can be supported by small internal IS staffs.
- For both state and local organizations, there is great sensitivity to the political impact of any solution, particularly since base closures and other forms of layoffs in the 1990s have become important issues. A new electronic document storage system can reduce the cost of storing and retrieving documents. The same system can also raise the issue of job security, retraining, and the inevitable concerns about employee health benefits.

In order to ensure successful projects, vendors must follow through with good user training programs and strong project management.

- Many vendors remain focused on products, or very specific services, but fail to notice the larger need for broader-based professional services and systems integration.
- The need continues to grow for vendors capable of designing networks, initiating connectivity and interoperability, and updating existing systems.

Overall, the market will remain strong. Short-term expenditures will be reduced until the economic climate improves significantly. However, growing demands for public service will make it impossible for expenditure reductions to become long term.

(Blank)



# Conclusions and Recommendations

## A

### Conclusions

State and local government organizations are more likely than private-sector companies to seek the assistance of information systems vendors to address the growing number of complex solutions required. Based on INPUT's research of state and local government, key areas of opportunity are shown in Exhibit V-1. These opportunities are consistent with trends INPUT has observed in the state and local government market over the last several years.

EXHIBIT V-1

#### Key Opportunities

- |                             |                   |
|-----------------------------|-------------------|
| • Health and Human Services | • Tax Management  |
| • Office Automation         | • Human Resources |
| • Law Enforcement           | • Tax Collection  |
| • Election Systems          | • Payroll         |
| • Financial/Fiscal Control  | • Dispatch        |

## B

### Recommendations

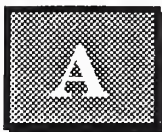
The varied nature of successful vendors in the state and local government market accentuates the fact that there are a number of ways to be successful in this sector. Key recommendations are shown in Exhibit V-2.

## EXHIBIT V-2

**Recommendations**

- Increase awareness of market needs
  - Use consulting approach
  - Extend and update existing systems
  - Replicate applications
  - Find and support the entrepreneur
- 
- Many vendors do not devote sufficient effort to monitoring developments in the state and local government market, because actions at one level of government are often the result of actions or legislation initiated at a higher level of government. Successful vendors understand this interrelationship and apply it to their grasp of user requirements.
  - Vendors new to the state and local government market should approach it through consulting services. Consulting establishes credibility and aids the development of awareness regarding IS problems in state governments. States will often award follow-on contracts to vendors who have demonstrated knowledge of their requirements.
    - As always, vendors who can expand existing systems and integrate new technologies without complete replacement will have an advantage.
  - To capitalize fully on market expertise, vendors must ensure that all applications developed for one government entity are modular, so that they can be used with little modification in a corresponding entity in a different jurisdiction.
  - Vendors must support the new entrepreneurial breed of managers in state and local government. They must understand their needs, develop solutions with quick payback, and assist with the cost-justification model.

With federal assistance declining and likely to dwindle further, state and local governments will need more assistance to improve operational performance and deliver more services at lower cost.



# Forecast Database and Reconciliation

## A

---

### Forecast Database

Exhibit A-1, on the following page, presents the 1994-1999 forecast for the state and local government sector.

## B

---

### Forecast Reconciliation

Exhibit A-2 presents the forecast reconciliation for the state and local government sector.

Significant differences between the 1993 and 1994 INPUT forecasts are as follows:

- The largest single difference is in professional services, where the \$170 million (6%) decrease between 1993 and 1994 is due to a greater perceived need among users for systems integration and outsourcing. As noted in several examples in the body of this report, state and local government users are typically owners of old technology that they need integrated with new, workable systems and solutions. As for outsourcing, INPUT has indicated that it is often the least costly way for government agencies to perform an old task in a new, more effective way.
- The decreases reported in the 1993 markets for systems integration and outsourcing are adjustments INPUT made to reflect a forecast for these markets that was higher than the actual values.

## EXHIBIT A-1

**State and Local Government—User Expenditures  
Forecast by Product/Service Market, 1993-1999**

<b>Product/Service Sector</b>	<b>1993 (\$M)</b>	<b>Growth 93-94 (%)</b>	<b>1994 (\$M)</b>	<b>1995 (\$M)</b>	<b>1996 (\$M)</b>	<b>1997 (\$M)</b>	<b>1998 (\$M)</b>	<b>1999 (\$M)</b>	<b>CAGR 94-99 (%)</b>
<b>Sector Total</b>	6863	13%	7769	8856	10112	11567	13260	15226	14%
<b>Professional Services</b>	2900	12%	3234	3605	4019	4481	4996	5572	11%
- IS Consulting	744	12%	835	947	1073	1216	1379	1563	13%
- Education & Training	402	12%	452	498	549	605	666	734	10%
- Software Development	1754	11%	1947	2160	2397	2660	2951	3275	11%
<b>Systems Integration</b>	1015	14%	1161	1299	1454	1628	1825	2047	12%
- Equipment	368	9%	401	434	469	507	548	593	8%
- Software Products	64	11%	71	77	85	92	101	110	9%
- Professional Services	556	18%	658	753	861	985	1127	1289	14%
- Other	27	15%	31	35	39	44	49	55	12%
<b>Outsourcing</b>	1998	15%	2291	2725	3247	3876	4636	5550	19%
- Platform Operations	458	7%	488	548	616	693	779	875	12%
- Applications Operations	1055	15%	1215	1442	1712	2032	2413	2864	19%
- Desktop Services	225	23%	277	357	460	593	766	987	29%
- Network Management	260	20%	311	378	459	558	678	824	22%
<b>Processing Services</b>	369	12%	415	467	526	592	667	751	13%
- Transaction Processing	369	12%	415	467	526	592	667	751	13%
- Utility Processing									
- Other Processing									
<b>Network Services</b>	152	20%	182	219	264	318	386	468	21%
- Electronic Information Svcs	56	13%	63	71	80	89	101	113	12%
- Network Applications	96	24%	119	148	184	229	285	355	24%
<b>Applications Software</b>	219	15%	252	283	319	360	406	460	13%
- Mainframe	63	6%	67	70	73	76	79	82	4%
- Minicomputer	44	14%	50	56	64	72	81	92	13%
- Workstation/PC	112	21%	135	157	182	212	246	286	16%
<b>Turnkey Systems</b>	210	11%	234	258	283	312	344	378	10%
- Equipment	92	9%	100	108	117	127	137	148	8%
- Software Products	80	13%	90	100	110	122	135	149	11%
- Professional Services	38	16%	44	50	56	63	72	81	13%

## EXHIBIT A-2

**State and Local Government  
1994 MAP Database Reconciliation**

Product/Service Sector	1993 Market				1998 Market				93-98 CAGR per data '93 Rpt (%)	93-98 CAGR per data '94 Rpt (%)
	1993 Market (Fcst) (\$M)	1994 Report (Actual) (\$M)	Variance From 1993 Forecast		1993 Market (Fcst) (\$M)	1994 Report (Fcst) (\$M)	Variance From 1993 Forecast			
			(\$M)	(%)			(\$M)	(%)		
Total	7098	6863	-235	-3%	13849	13260	-589	-4%	14%	14%
Professional Services	3070	2900	-170	-6%	5327	4996	-331	-6%	12%	11%
Systems Integration	1035	1015	-20	-2%	1813	1825	12	1%	12%	12%
Outsourcing	2045	1998	-47	-2%	4950	4636	-314	-6%	19%	18%
Processing Services	364	369	5	1%	641	667	26	4%	12%	13%
Network Services	149	152	3	2%	377	386	9	2%	20%	20%
Applications Software	219	219	0	0%	395	406	11	3%	13%	13%
Turnkey Systems	216	210	-6	-3%	346	344	-2	-1%	10%	10%

(Blank)



